

REMARKS

The Examiner is thanked for the indication that claims 1 and 9-11 are allowable.

Claims 1-2 and 4-12 are pending in the application. Claims 1, 2, 9 and 12 are independent. By the foregoing Amendment, Applicants have amended claims 2 and 12. It is believed that these changes introduce no new matter and their entry is respectfully requested.

Rejection of Claims 2, 7-8, and 12 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 2, 7-8, and 12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,426,641 to Afrashteh et al. (hereinafter “Afrashteh”) in view of U.S. Patent No. 4,591,774 to Ferris et al. (hereinafter “Ferris”). To establish a *prima facie* case of obviousness, an Examiner must show three things: (1) that there is some suggestion or motivation to modify a reference or combine reference teachings to arrive at the claimed invention, (2) that there must be a reasonable expectation of success, and (3) that the references teach or suggest each and every element of the claimed invention. (MPEP §2143.) Applicant respectfully traverses the rejection.

Amended independent claim 2 recites in pertinent part “circuitry merged with the RF power amplifier to apply a digital signal to the RF power amplifier, the digital signal to program a conduction angle of the RF power amplifier; wherein the circuitry comprises multiple inverter branches of p-type metal oxide semiconductor (PMOS) and n-type MOS (NMOS) switches coupled to the RF power amplifier, *wherein strengths of the multiple inverter branches are changed to program the conduction angle* of the RF power amplifier” (emphasis added). Amended independent claim 12 recites in pertinent part “*programming a conduction angle* of the RF power amplifier using the digital signal *by adjusting strengths of* multiple inverter branches of p-type metal oxide semiconductor (**PMOS**) and n-type MOS (**NMOS**) switches” (emphasis added). Support for these changes according to at least one embodiment can be found in Applicants’ Specification at page 5, lines 1-2.

In the Office Action, the Examiner stated that because Applicants provides no specific definition for the term “programming” the examiner has to give the term broadest reasonable

interpretation. Applicants respectfully submit that the language recited in claims 2 and 12 provide a specific definition of “programming.” Applicants respectfully submit further that Afrashteh fails to teach or suggest adjusting or changing strengths of PMOS and/or NMOS devices to control the conduction angle of an RF power amplifier. In fact the amplifier 203 in Afrashteh is “maintained in a class AB mode by means of selection of a quiescent point, the quiescent drain current, I_{DO} , supplied on lead 205 during periods of no input signal” (Column 15, lines 25-30). Thus not only is the conduction angle of the amplifier 203 in Afrashteh not programmed by manipulating the strengths of multiple inverter branches having PMOS and NMOS switches, but the conduction angle of the amplifier 203 in Afrashteh is not changed at all. The conduction angle of the amplifier 203 in Afrashteh is maintained in AB mode.

Applicants respectfully submit further that Afrashteh in view of Ferris provides no additional teaching or suggestion of programming an RF amplifier by manipulating the strengths of multiple inverter branches having PMOS and NMOS switches. Applicants therefore respectfully submit that Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness of claims 2 and 12 over Afrashteh in view of Ferris and that claims 2 and 12 are thus patentable over Afrashteh in view of Ferris. Claims 4 and 7-8 properly depend from claim 2, which Applicants respectfully submit is patentable. Accordingly, Applicant respectfully submits that claims 4 and 7-8 are patentable are patentable for at least the same reasons that claims 2 is patentable. MPEP §2143.03 provides that if an independent claim is unobvious, then any claim depending from the independent claim is unobvious (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejection to claims 2, 4, 7-8, and 12.

Rejection of Claims 5-6 Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 5-6 under 35 U.S.C. § 103(a) as being unpatentable over Afrashteh in view of Ferris in further view of U.S. Patent Publication No.2002/0196086 to Sowalti (hereinafter “Sowalti”). Applicants respectfully traverse the rejection. Claims 5-6 properly depend from claim 2, which Applicants respectfully submit is patentable. Accordingly, Applicants respectfully submit that claims 5-6 are patentable for at least the same reasons that claim 2 is patentable. (See MPEP §2143.03 (citing *In re Fine*, 837 F.2d

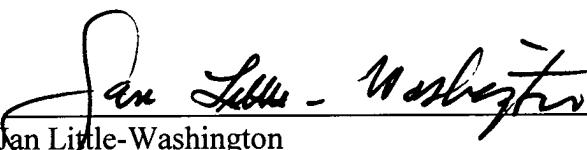
1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejection to claims 5-6.

CONCLUSION

Applicants submit that all grounds for rejection have been properly traversed, accommodated, or rendered moot, and that the application is in condition for allowance. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 10/14/2004

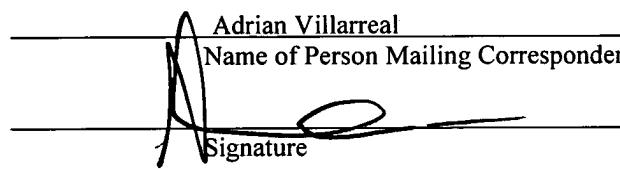

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